

slip Jan. 16

Work Order ID 78097

78097

Page 1

December-28-11 3:32:46 PM

Item ID: D3959-3KGY

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Duct, Vertical Tunnel, Aft Center

Start Date: 28/12/2011 Start Qty: 1.00

1

Cust Item ID:

Required Date: 16/01/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: M.L.J.

Date: 11/12/28

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D3959

B

100

0.00

100

HandThermo

Memo

0.00

Hand Finishing Thermoforming

1-Cut Sheet to required Blank size

x/ 12/01/09

105

0.00

105

HandThermo

Dry Material

Memo

0.00

Hand Finishing Thermoforming

Dry Sheet as per QSI022 KYDEX

Temp: 150°F

Time IN: 7:00 pm 12/01/08

Time OUT: 5:00 am 12/01/09

x/ 12/01/09

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

December-28-11 3:32:46 PM

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Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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NOTE: Date & initial all entries

78097

Page 3

N900040100

Setup Start *NS1*

Stop *NS2*

Start Date: 28/12/2011 **Start Qty:** 1.00 ***1***

Cust Item ID:

Required Date: 16/01/2012 **Req'd Qty:** 1.00 *** 1 ***

Customer:

Reference:

Approvals: _____ **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

140

0.00

140

0.00

HandThermo

Memo

Hand Finishing Thermoforming

1-Trim to finished dimensions as per Dwg

150

0.00

QC2- Inspect parts off machine FAI/FAIB

150

0.00

QC

Memo

Quality Control

Complete FAI document

160

0.00

QC5- Inspect part completeness to step on W/O

160

0.00

QC

Memo

Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

78097

Page 4

N900040100

Setup Start *NS1*

Stop *NS2*

Start Date: 28/12/2011 **Start Qty:** 1.00 ***1***

Cust Item ID:

Required Date: 16/01/2012 **Req'd Qty:** 1.00 *** 1 ***

Customer:

Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

170 Identify as per dwg & Stock Location: THERM 0.00

170

ATTN: WO # 78094

Packaging

Memo	0.00
-------------	------

Packaging

180	QC21- Final Inspection - Work Order Release	0.00
-----	---	------

180

QC

Quality Control

Memo	0.00
-------------	------

12/01/17

12/1/18 *[Signature]*

12-01-14

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

December-28-11 3:32:50 PM

Page 1

Work Order ID: 78097

78097

Parent Item: D3959-3KGY

D3959-3KGY

Parent Item Name: Duct, Vertical Tunnel, Aft Center

Start Date: 28/12/2011

Required Date: 16/01/2012

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev. A New Issue 10/04/19 DL
Add Step 105 Dry Material 10/04/21 DL

IPP Rev. B

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MKYD6185S.080-P3-52068		Purchased	No			100	sf	1,011.893	6.729	6.729			

MKYD6185S 080-P3-52068

Kydex steel grey

**

Location

Loc Qty

Loc Code

therm

1011.893107

111807

10.4896282

119476

1001.40348

6.729 29 PK

OK
12/01/13

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

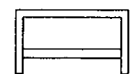
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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

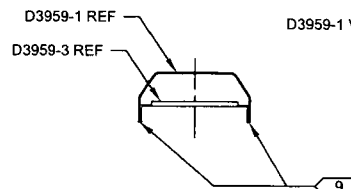
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

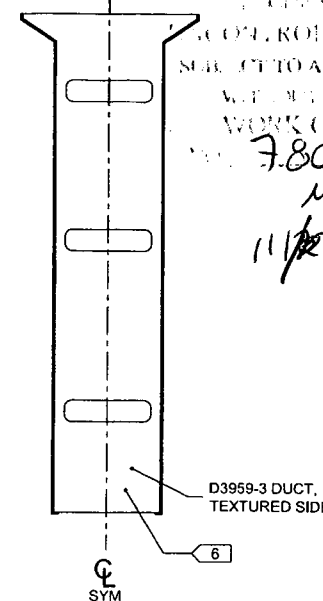
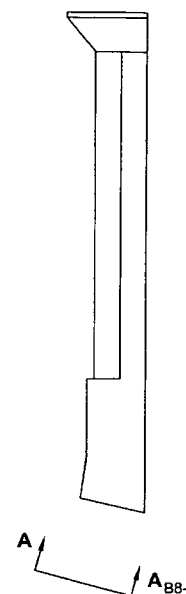
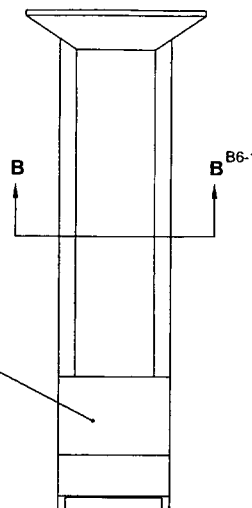
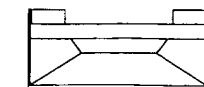
ITEM	QTY -041 KIV	QTY -041 KGY	PART NUMBER	DESCRIPTION
	X		D3959-041KIV	VERTICAL TUNNEL (IVORY)
		X	D3959-041KGY	VERTICAL TUNNEL (STEEL GRAY)
1	1		D3959-1KIV	VERTICAL TUNNEL (IVORY)
2	1		D3959-1KGY	VERTICAL TUNNEL (STEEL GRAY)
3		1	D3959-3KIV	DUCT, VERTICAL TUNNEL (IVORY)
4		1	D3959-3KGY	DUCT, VERTICAL TUNNEL (STEEL GRAY)
10	A/R	A/R	EZ250150	ADHESIVE, 3M SCOTCH WELD



VIEW A-A B3-1



SECTION B-B C4-1



CONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
78097
M.L.J
11/12/20

RELEASED
2010-01-06
AM

D3959-041 VERTICAL TUNNEL, AFT CENTER

NOTES:

- 1) MATERIAL: SEE TABLE
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N D3959-041KIV OR D3959-041KGY USING VIBRATING STYLUS
- 7) WEIGHT: 2.8 lbs
- 8) TRIM D3959-3 DUCT AS REQUIRED TO ALLOW PROPER MATING
- 9) SEAL MATING EDGES WITH EZ250150 ADHESIVE ALONG MATING PERIMETER WITH MINIMUM THICKNESS OF 0.020"

B	ADD -3/-041	PH	09.12.15
A	NEW ISSUE	PH	09.06.17
REV.	DESCRIPTION	BY	DATE
DESIGN	PH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	PH	DRAWING NO.	REV. B
CHECKED	92	D3959	SHEET 1 OF 3
MFG. APPR.	92	TITLE	SCALE
APPROVED	92	VERTICAL TUNNEL (206 L3/L4)	NTS
DE APPR.	92	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	
DATE	09.12.15		

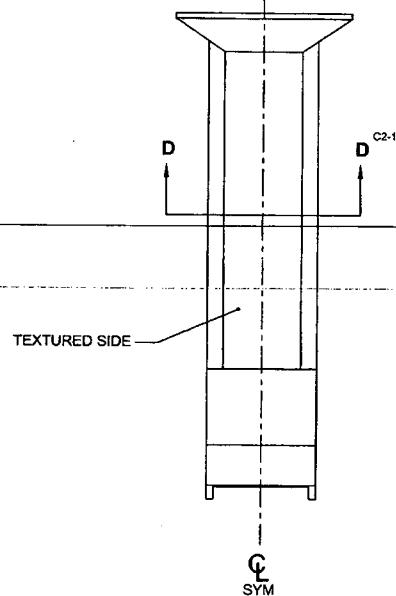
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

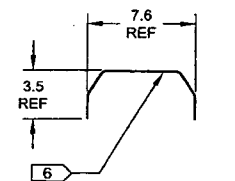
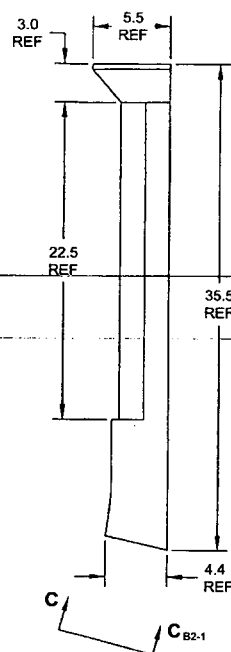
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

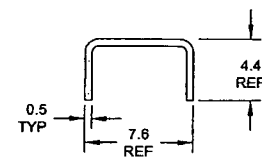
NOTE: Date & initial all entries



D3959-1 VERTICAL TUNNEL, AFT CENTER



SECTION D-D



VIEW C-C ^{A4-1}

RELEASED
2010-01-06

NOTES:

- 1) MATERIAL: SEE TABLE
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N (SEE TABLE) USING VIBRATING STYLUS
- 7) WEIGHT: SEE .041
- 8) TOOLING: THERMOFORM PER MOLD DT9332-A PER DART QSI 022. TRIM PER MOLD
- 9) MINIMUM THICKNESS: 0.035" UNLESS OTHERWISE NOTED

PART NUMBER	DESCRIPTION
D3959-1KIV	KYDEX 6185, 0.080 THICK, P3-VELOUR MATTE, IVORY #62015 (MKYD6185S.080-P3-62015)
D3959-1KGY	KYDEX 6185, 0.080 THICK, P3-VELOUR MATTE, STEEL GRAY #52068 (MKYD6185S.080-P3-52068)

DESIGN	PH	DART AEROSPACE LTD	
DRAWN	PH	HAWKESBURY, ONTARIO, CANADA	
CHECKED	Q2	DRAWING NO.	REV. 1
MFG. APPR.	MB	D3959	SHEET 2 OF 2
APPROVED	AM	TITLE	SCALE
DE APPR.	PH	VERTICAL TUNNEL (206 L3/L4)	
DATE	09.12.15	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PART OF A CONFIDENTIAL COMMERCIAL INVENTION. PERMISSION IS GRANTED THAT IT MAY BE USED FOR ANY PURPOSE OR COPIES OR COMMUNICATED TO ANY OTHER PERSON WITHOUT THE WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

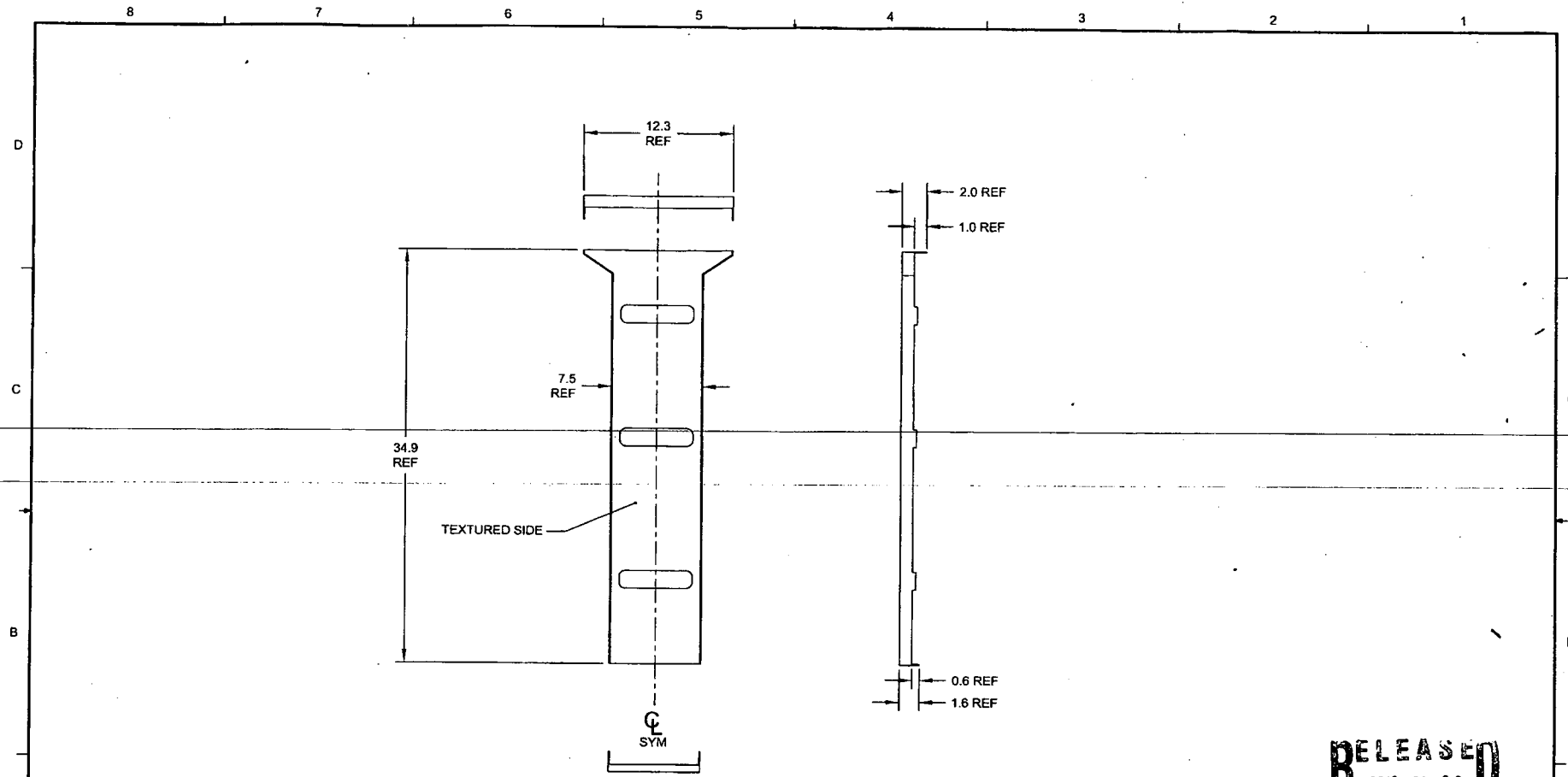
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

78097



D3959-3 DUCT, VERTICAL TUNNEL, AFT CENTER

NOTES:

- 1) MATERIAL: SEE TABLE
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N (SEE TABLE) USING VIBRATING STYLUS
- 7) WEIGHT: SEE -041
- 8) TOOLING: THERMOFORM PER MOLD DT9332-B PER DART QSI 022. TRIM PER MOLD
- 9) MINIMUM THICKNESS: 0.035" UNLESS OTHERWISE NOTED

PART NUMBER	DESCRIPTION
D3959-3KIV	KYDEX 6185, 0.080 THICK, P3-VELOUR MATTE, IVORY #62015 (MKYD6185S.080-P3-62015)
D3959-3KGY	KYDEX 6185, 0.080 THICK, P3-VELOUR MATTE, STEEL GRAY #52068 (MKYD6185S.080-P3-52068)

DESIGN	PH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	PH		
CHECKED	Q2	DRAWING NO.	REV. B
MFG. APPR.	WNS	D3959	SHEET 3 OF 3
APPROVED	WNS	TITLE	SCALE
DE APPR.	WNS	VERTICAL TUNNEL (206 L3/L4)	NTS
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W/O:		WORK ORDER CHANGES					
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order: 78097
Description:	Part Number: D3959-3K64
Inspection Dwg: D3959 Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST
THERMOFORMING SECTION

Description	Accept	Reject	Method of Inspection	Comments
Inside Radii less than $\frac{1}{8}$ "	✓			
Shape Definition	✓			
Texture Retention	✓			
Material imperfections such as bumps, cracks, voids, scratching	✓			

Measured by: <i>MC</i>	Date: 12/01/09
-------------------------------	-----------------------

TRIMMING SECTION

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
12.3	Ref	12.3"	✓		TAPE DL-01	
7.5	Ref	7.375"	✓		TAPE DL-01	
34.9	Ref	34.8"	✓		TAPE DL-01	
2.0	Ref	2.25"	✓		TAPE DL-01	
1.0	Ref	1.125"	✓		TAPE DL-01	
0.6	Ref	0.75"	✓		TAPE DL-01	
1.6	Ref	1.75"	✓		TAPE DL-01	
0.035"	M.I.N.	0.055"	✓		Check DL-02	

Measured by: <i>Sh</i>	Date: 12/01/13
Audited by: <i>S</i>	Date: 12/01/13
Preliminary Approval:	Date:

Rev	Date	Change	Revised by	Approved
B	10.04.14	Added preliminary approval	KJ	

10.04.14